bryton

Rider 20+

User's Manual

Table of Contents

Getting Started 4

Your Rider 20+..... 4
Accessories 5
Status Icons 5
Step 1: Charge your Rider 20+.... 6
Step 2: Turn On Rider 20+..... 6
Step 3: Initial Setup..... 6
Step 4: Acquire Satellite Signals 6
Step 5: Ride Your Bike with Rider 20+ 7
Reset Rider 20+..... 7
How to connect your device with brytonsport.com..... 7

Training 8

Simple Workouts 8
My Workout 9
Stop Training 10
View Exercise/Training Record 10
History Flow..... 11

Settings 12

My Lap..... 12
Display 14
Sensors..... 16
Personalize User Profile..... 17
Change System Settings..... 19
My Device Manager 21
View GPS Status 22
View Software Version..... 22

Appendix..... 23

Specifications 23
Battery Information 24
Install Rider 20+ 25
Install the Speed/Cadence/ Dual Sensor (Optional) 26
Install Heart Rate Belt (Optional)..... 27
Wheel Size and Circumference 28
Basic Care For Your Rider 20+... 29

WARNING

Always consult your physician before you begin or modify any training program. Please read the details in Warranty and Safety Information guide in the package.

Product Registration

Help us better support you by completing your device registration using Bryton Bridge. Go to http://support.brytonsport.com for more information.

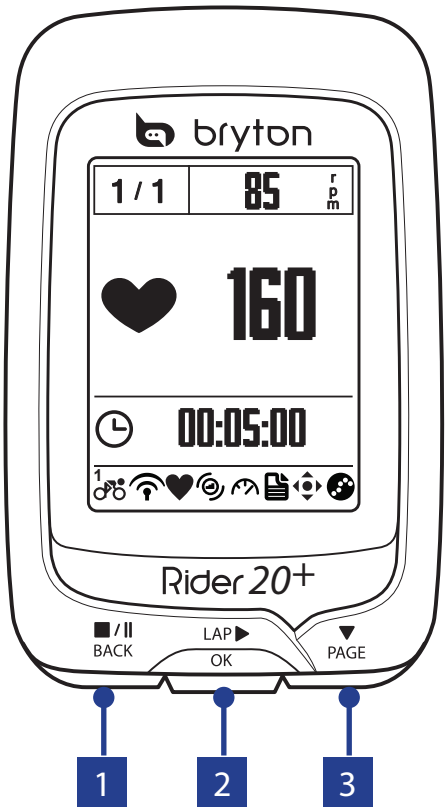
Bryton Software

Go to http://brytonsport.com to download free software to upload your personal profile, tracks and analyze your data on the web.

Getting Started

This section will guide you on the basic preparations before you start using your Rider 20+.

Your Rider 20+



1 BACK (BACK)

- Press to return to the previous page or cancel an operation.
- When recording, press to pause recording. Press it again to stop recording.

2 LAP/OK (LAP OK)

- Press and hold to turn the device on/off.
- In Menu, press to enter or confirm a selection.
- In free cycling, press to start recording.
- When recording, press to mark the lap.

3 PAGE (PAGE)

- In Menu, press to move down to scroll through menu options.
- In Meter view, press to switch meter screen page. Press and hold to enter Shortcut page.

Accessories

The Rider 20+ comes with the following accessories:

- 4-pin USB cable
- Bike mount

Optional items:

- Heart rate belt
- Speed sensor
- Cadence sensor
- Speed/Cadence Dual sensor

Status Icons

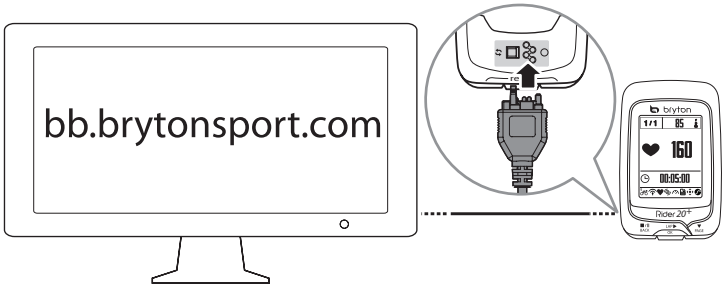
Icon	Description
Bike in use	
	Bike 1
	Bike 2
GPS Signal Status	
	No signal (not fixed)
	Weak signal
	Strong signal
Power Status	
	Full battery
	Half battery
	Low battery

Icon	Description
	Heart Rate Sensor Active
	Cadence Sensor Active
	Speed Sensor Active
	Dual Sensor Active
	Training mode
	Meter mode
	Log Record in Progress
	Recording is paused

NOTE: Only the active icons are displayed on the screen.

Step 1: Charge your Rider 20+

Connect Rider 20+ to a PC to charge the battery for at least 3 hours.
Unplug the device when it is fully charged.



Step 2: Turn On Rider 20+

Press and hold LAP/OK to turn on the device.

Step 3: Initial Setup

When turning Rider 20+ on for the first time, the setup wizard appears on screen. Follow the instructions to complete setup.

1. Select the display language.
2. Select the daylight saving time.
3. Select the unit of measurement.
4. Enter your "user profile".

   The "user profile" includes the following data settings:

   • Gender • Height • Weight

   It is recommended to input the data. The data accuracy will highly affect your training analysis.
5. Read and accept the Safety Agreement.

Step 4: Acquire Satellite Signals

Once the Rider 20+ is turned on, it will automatically search for satellite signals. It may take 30 to 60 seconds to acquire signals. Please make sure you acquire the satellite signal for the first time use.

The GPS signal icon (/) appears when GPS is fixed.

• If the GPS signal is not fixed, an icon appears on the screen.

Step 5: Ride Your Bike with Rider 20+

- **Free ride:**
  Select **Meter** from the menu list and start free ride.
- **Start an exercise and record your data:**
  In meter view, press LAP/OK to start recording, press ■/II BACK to pause, press ■/II BACK again to stop.
- **Start a training:**
  Select **Train** from the menu list. Training can be based on time, distance, calories burn, or the saved workouts.

Reset Rider 20+

To reset the Rider 20+, long press all three keys (■/II BACK / LAP/OK / ▼ PAGE) at the same time.

How to connect your device with brytonsport.com

1. Download Bryton Bridge 2

a. Go to http://www.brytonsport.com/help/start and download Bryton Bridge 2.

b. Follow the on-screen instructions to install Bryton Bridge.

2. Register an Account

Go to http://www.brytonsport.com and register an account. Please provide accurate information in Personal Setting.

3. Connect to PC

Turn on your Rider 20+ and connect it to your computer by using USB cable.

4. Share Your Experience With Other Bikers

To share your experiences with other bikers around the world, please visit http://www.brytonsport.com.

NOTE: Go to corp.brytonsport.com > Support > Tutorial for more instructions.

Training

Bicycling is one of the best types of exercise for your body. It helps you to burn your calories, lose weight, and increase your overall fitness. With the Rider 20+ Training feature, you can set simple workouts and use the Rider 20+ to track your training or workout progress.

1. In the main screen, press ▼ PAGE to select **Train**.
2. Press LAP▶ OK to enter the Training menu.

Simple Workouts

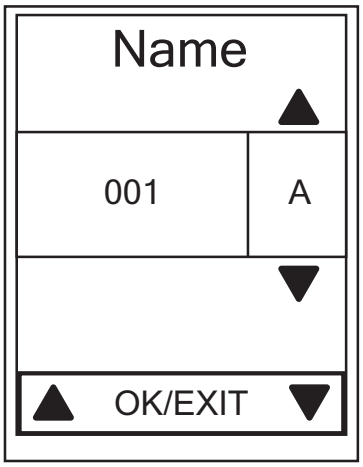
You can set simple workouts by entering your time or distance goals.

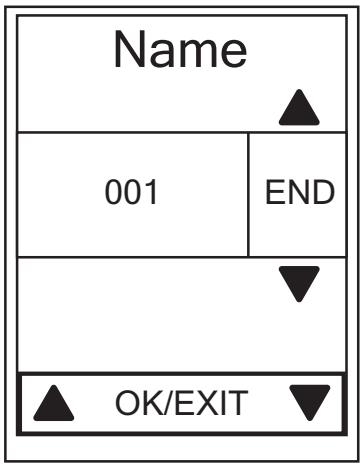
The Rider 20+ offers you three types of simple workouts: Time, Distance, and Calories.

Time

1. In the Training menu, press ▼ PAGE to select **To Plan > Time** and press LAP▶ OK.
2. Press ■/II BACK / ▼ PAGE to set your time and press LAP▶ OK to confirm.
3. A "Save to My Workout?" message appears on the screen. Select **Yes** and press LAP▶ OK to confirm.
4. Enter the workout name using the on-screen keyboard.
5. Go for a ride.
   Go to **Train > Workouts** and choose the save workout. Press LAP▶ OK to start training and record log.

Using the On-screen Keyboard



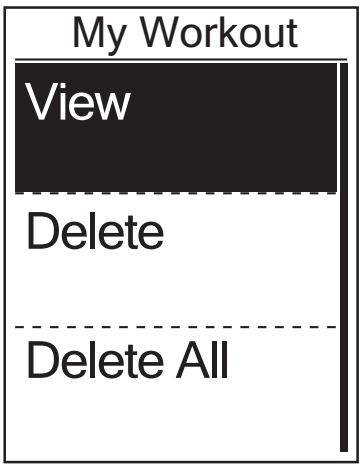


1. Press ■/II BACK / ▼ PAGE to select the input character.
   - Select **DEL** to erase the data.
2. Press LAP ▶ OK to confirm the selection.
3. When finished, press ■/II BACK / ▼ PAGE to select **END** and press LAP ▶ OK to confirm.

NOTE: If user does not enter the workout name, the system will automatically label the file name according to the current date and time.

My Workout

With My Workout feature, you can start your workout using the training plan that you have saved in **To Plan** menu.

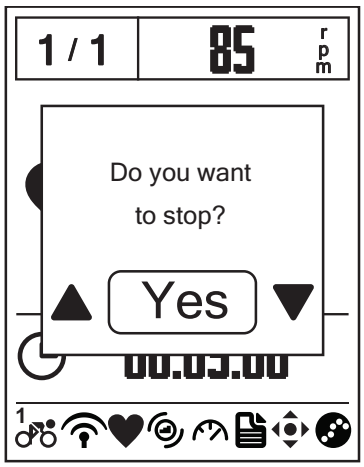


1. In the Training menu, press ▼ PAGE to select **My Workout** and press LAP ▶ OK.
2. Press ▼ PAGE to select **View** and press LAP ▶ OK to enter its submenu.
   - Press ▼ PAGE to select your desired training plan and press LAP ▶ OK to confirm.
   - Go for a ride.
     Press LAP ▶ OK to start training and record log.
3. To choose which workouts to delete, select **Delete**.
4. To delete all workouts to delete, select **Delete All**.

NOTE: If the selected workout includes several interval settings, a workout details appear on the screen. Select **Start** and press LAP/OK to proceed with the workout.

Stop Training

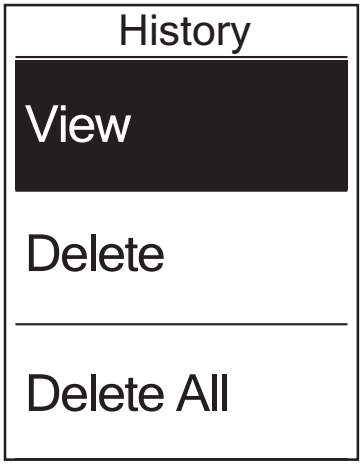
You can stop the current training after you have reached your goal or when you decide to end the current training.



1. Press ■/II BACK to pause the recording and press ■/II BACK again to stop the recording.
2. A "Do you want to stop?" message appears on the screen. To stop the current training, press ■/II BACK / ▼ PAGE to select **Yes** and press LAP/OK to confirm.

View Exercise/Training Record

Use View History to view or delete your exercise/training history.



To view your history:

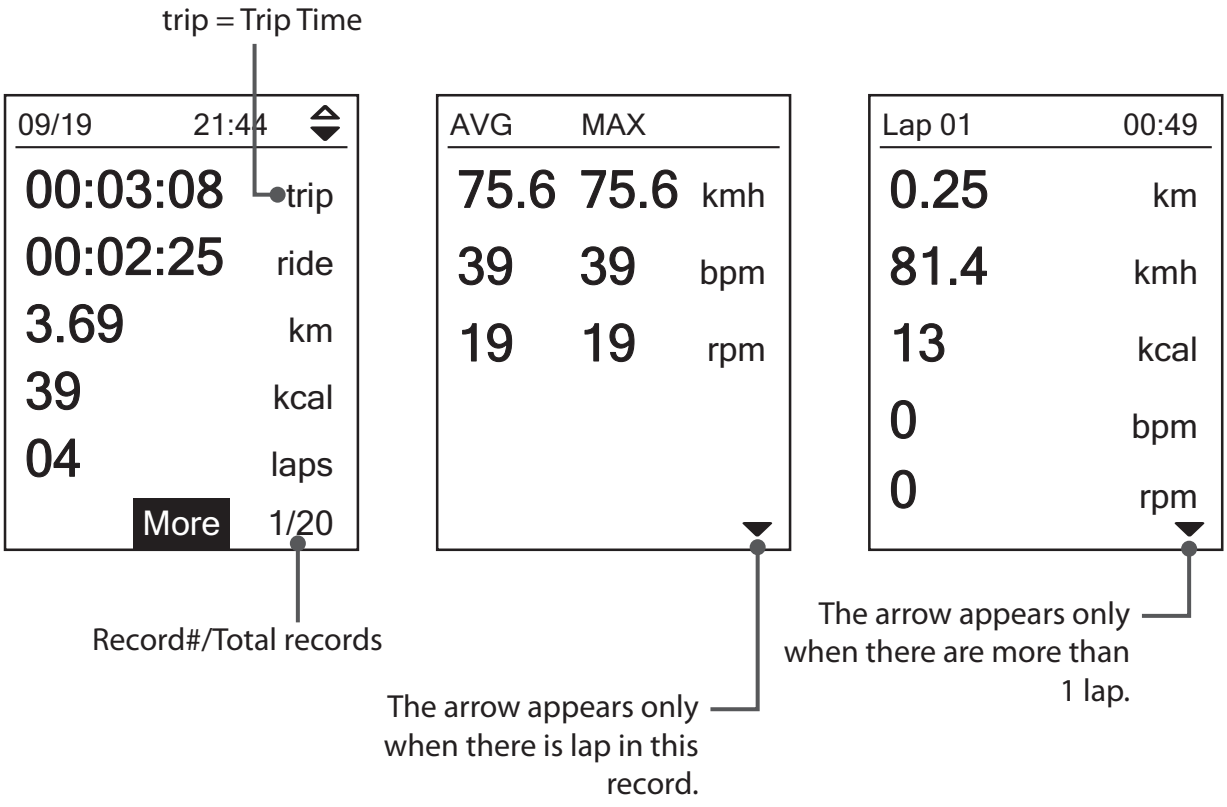
1. In the main screen, press ▼ PAGE to select **History** > **View** and press LAP/OK.
2. Press ▼ PAGE to select **View** and press LAP/OK to confirm.
3. Press ▼ PAGE to select a training history from the list and press LAP/OK to view your history.

NOTE: You can also upload your history to brytonsport.com to keep track of all your ride data.

To delete your history:

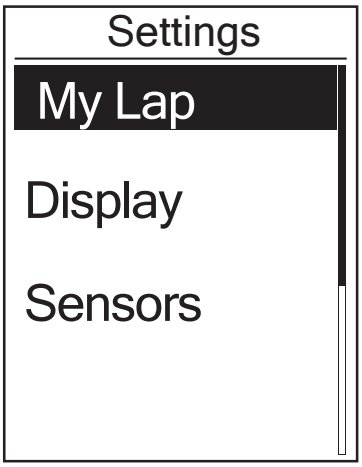
1. In the main screen, press ▼ PAGE to select **History** > **View** and press LAP▶ OK.
2. Press ▼ PAGE to select **Delete** and press LAP▶ OK to enter the history list.
3. Press ▼ PAGE to select a training history from the list and press LAP▶ OK to delete the selected history.
4. A "Do you want to delete?" message appears on the screen. To delete the data, press ■/II BACK / ▼ PAGE to select **Yes** and press LAP▶ OK to confirm.

History Flow



Settings

With the Settings feature, you can customize display settings, sensor settings, system settings, bike and user profiles, GPS setup, and view device information.

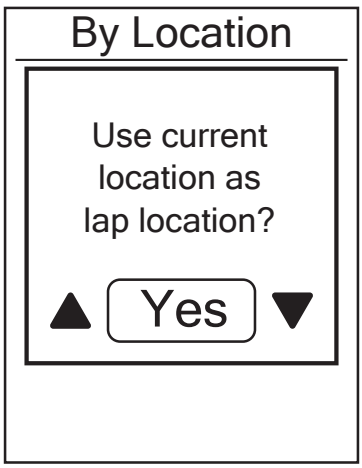


1. In the main screen, press ▼ PAGE to select **Settings**.
2. Press LAP▶ OK to enter the Settings menu.

My Lap

With My Lap feature, you can use your device to automatically mark the lap at a specific location or after you have traveled a specific distance.

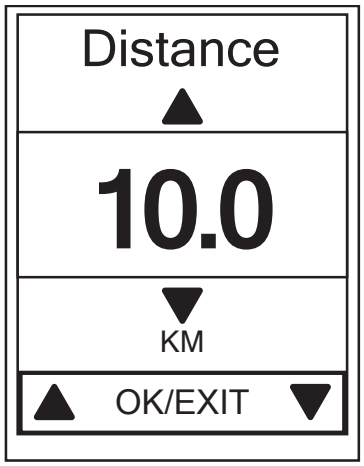
Lap by Location



1. In the Settings menu, press ▼ PAGE to select **My Lap > By Location** and press LAP▶ OK.
2. Press ▼ PAGE to select **Detail info** and press LAP▶ OK to change the setting.
3. A "Use current location as lap location?" message appears on the screen. To save the data, press ▼ PAGE to select **Yes** and press LAP▶ OK to confirm.
4. Press ■/II BACK to exit this menu.

NOTE: If the GPS signal is not fixed, a "No GPS signal. Searching GPS, please wait" message appears on the screen. Check if the GPS is on and make sure you step outside to acquire the signal.

Lap by Distance

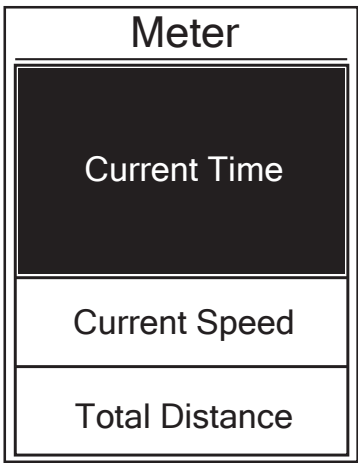


1. In the Settings menu, press PAGE to select **My Lap > Distance** and press LAP OK.
2. Press PAGE to select **Detail info** and press LAP OK to change the setting.
3. Press BACK / PAGE to select your desired distance and press LAP OK to confirm.
4. Press BACK to exit this menu.

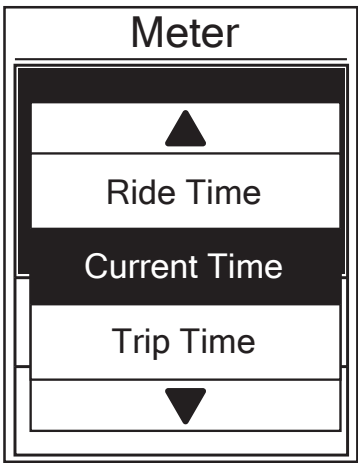
Display

You can set the display settings for the Meter, Lap, and Auto Switch. You can also set the Auto Switch interval setting.

Meter Display



3-grid display

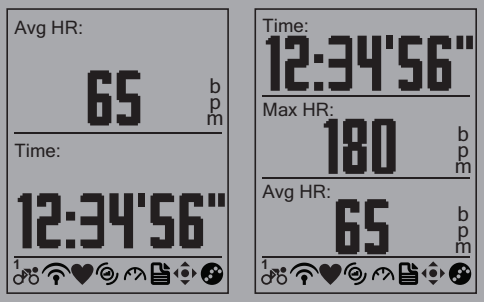


Item selection

1. In the Settings menu, press PAGE to select **Display > Meter > Meter 1**, **Meter 2**, or **Meter 3** and press LAP OK.
2. Press BACK / PAGE to select the number of data fields and press LAP OK to confirm.

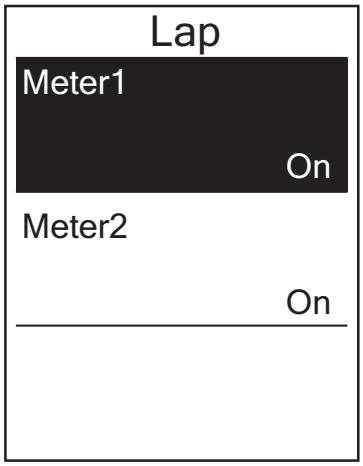
3. Press ▼ PAGE to select the item field that you want to customize, and press LAP▶ OK to confirm the selection.
4. Press ■/Ⅱ BACK / ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
5. Press ■/Ⅱ BACK to exit this menu.

NOTE: The number of data fields shown on the screen depends on the "Data fields" selection.



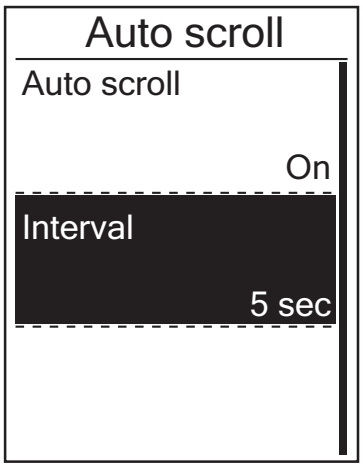
2-grid display 3-grid display

Lap Display



1. In the Settings menu, press ▼ PAGE to select **Display** > **LAP** > **Meter 1** or **Meter 2** and press LAP▶ OK.
2. Press ■/Ⅱ BACK / ▼ PAGE to select the number of data fields and press LAP▶ OK to confirm.
3. Press ▼ PAGE to select the item field that you want to customize, and press LAP▶ OK to confirm the selection.
4. Press ■/Ⅱ BACK / ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
5. Press ■/Ⅱ BACK to exit this menu.

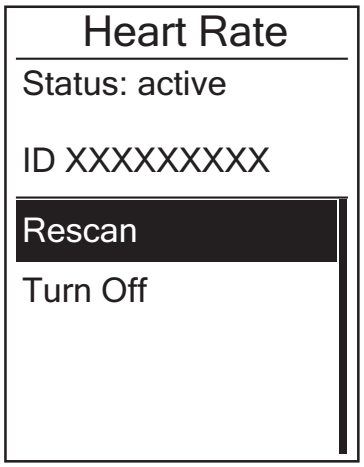
Auto Scroll



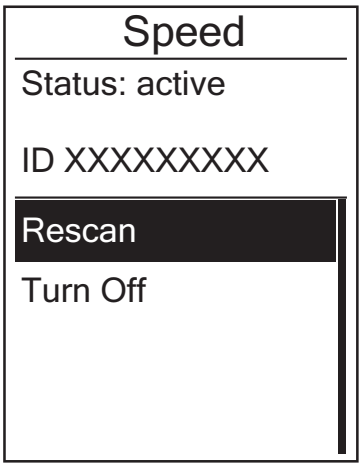
1. In the Settings menu, press ▼ PAGE to select **Display > Auto scroll** and press LAP▶ OK.
2. Press ▼ PAGE to select the setting that you want to change and press LAP▶ OK to enter its submenu.
   - Auto scroll: enable/disable the auto switch.
   - Interval: set the interval time.
3. Press ■/II BACK / ▼ PAGE to adjust the desired setting and press LAP▶ OK to confirm.
4. Press ■/II BACK to exit this menu.

Sensors

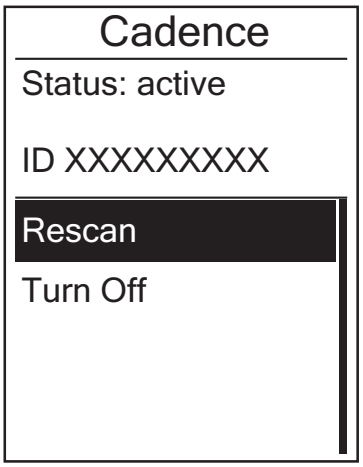
You can customize the respective sensor settings such as enable/disable the function or rescan the sensor for the device.



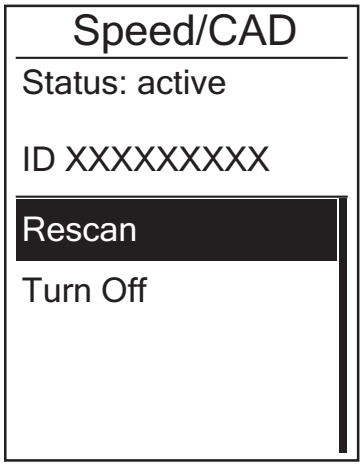
Heart Rate



Speed



Cadence



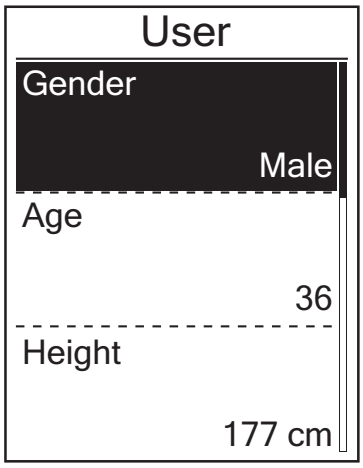
Speed/Cadence

1. In the Settings menu, press ▼ PAGE to select **Sensors** > **Heart Rate**, **Speed**, **Cadence**, or **Speed/CAD** and press LAP▶ OK.
2. Press ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
   - Rescan: rescan to detect the sensor.
   - Turn on/Turn off: enable/disable the sensor.
3. Press ■/II BACK to exit this menu.

NOTE:
- When the heart rate monitor is paired, the ♥ heart rate icon appears on the main screen.
- While pairing your speed/cadence sensor and the heart rate belt, please make sure there is no other cadence/speed sensor within 5 m. When the cadence sensor is paired, the cadence sensor icon appears on the main screen.

Personalize User Profile

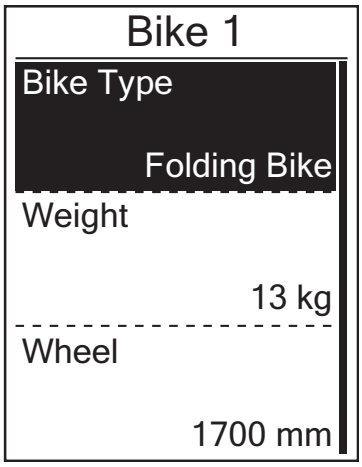
You can change your personal information.



1. In the Settings menu, press ▼ PAGE to select **User** and press LAP▶ OK.
2. Press ▼ PAGE to select the setting that you want to change and press LAP▶ OK to enter its submenu.
   - Gender: select your gender.
   - Age: specify your age.
   - Height: set your height.
   - Weight: set your weight.
   - Max HR: set your maximum heart rate.
   - LTHR: set your lactate threshold heart rate.
   - FTP: set your functional threshold power.
   - MAP: set your maximum aerobic power.
3. Press ■/II BACK / ▼ PAGE to adjust the desired setting and press LAP▶ OK to confirm.
4. Press ■/II BACK to exit this menu.

Personalize Bike Profile

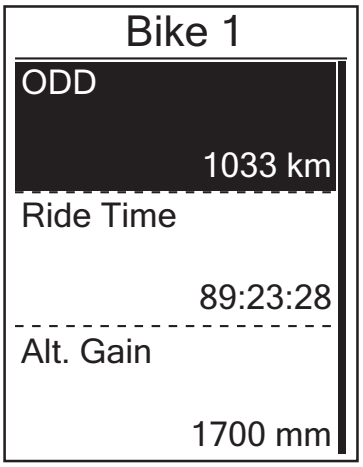
You can customize and view your bicycle(s) profile.



1. In the Settings menu, press ▼ PAGE to select **Bike** > **Bike 1** or **Bike 2** and press LAP▶ OK.
2. Press ▼ PAGE to select the setting that you want to change and press LAP▶ OK to enter its submenu.
   - Bike Type: select the bike type.
   - Weight: set the bike weight.
   - Wheel: set the bike wheel size.
   - Activate: select to activate the bike.
3. Press ■/II BACK / ▼ PAGE to adjust the desired setting and press LAP▶ OK to confirm.
4. Press ■/II BACK to exit this menu.

NOTE: For details on wheel size, see "Wheel Size and Circumference" on page 28.

View Bike Profile



1. In the Settings menu, press ▼ PAGE to select **Bike** > **Overview** and press LAP▶ OK.
2. Press ▼ PAGE to select the desired bike and press LAP▶ OK to confirm.
3. Press ▼ PAGE to view more data of the selected bike.
4. Press ■/II BACK to exit this menu.

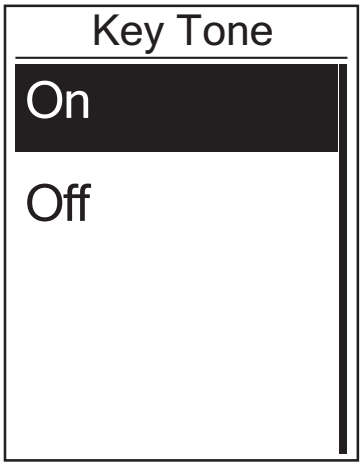
Change System Settings

You can customize the device system settings such as backlight off, self lap, key tone, beep, time/unit data format, on-screen display language, and data reset.

Backlight Off

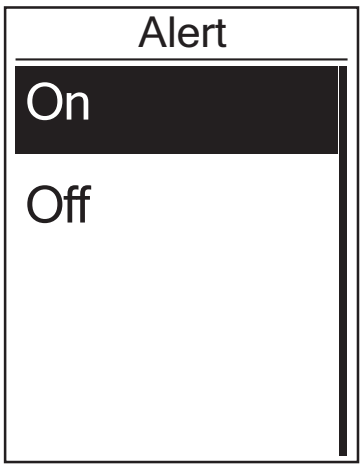
1. In the Settings menu, press ▼ PAGE to select **System > Backlight Off** and press LAP▶ OK.
2. Press ■/II BACK / ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
3. Press ■/II BACK to exit this menu.

Key Tone



1. In the Settings menu, press ▼ PAGE to select **System > Key Tone** and press LAP▶ OK.
2. Press ■/II BACK / ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
3. Press ■/II BACK to exit this menu.

Alert

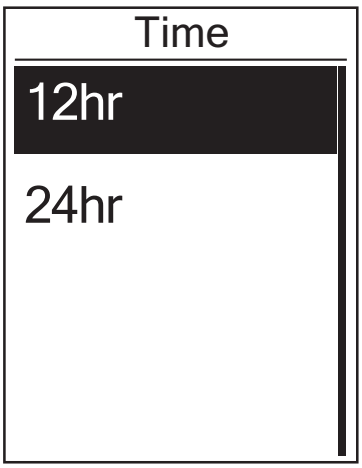


1. In the Settings menu, press ■/II BACK / ▼ PAGE to select **System** > **Alert** and press LAP ▶ OK.
2. Press ■/II BACK / ▼ PAGE to select the desired setting and press LAP ▶ OK to confirm.
3. Press ■/II BACK to exit this menu.

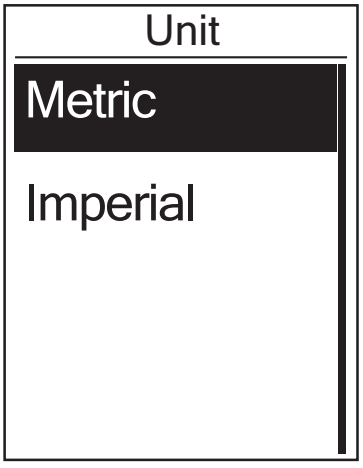
Time/Unit

Daylight Save

Date format



Time format



Unit

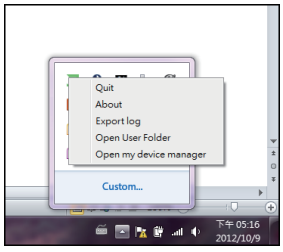
1. In the Settings menu, press ▼ PAGE to select **System > Time/Unit > Daylight Save**, **Date format**, **Time format**, or **Unit** and press LAP▶ OK.
2. Press ■/II BACK / ▼ PAGE to select the desired setting/format and press LAP▶ OK to confirm.
3. Press ■/II BACK to exit this menu.

Language

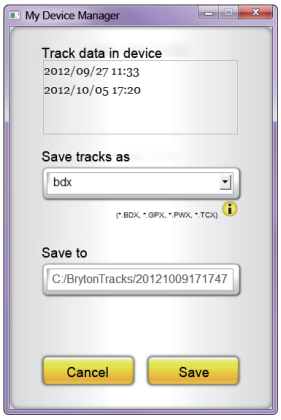
1. In the Settings menu, press ▼ PAGE to select **System > Language** and press LAP▶ OK.
2. Press ■/II BACK / ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
3. Press ■/II BACK to exit this menu.

My Device Manager

1. Download Bryton Bridge 2. See page 7 for more details.
2. Turn on your device and connect it to your computer by using USB cable. My Device Manager will automatically launch when the device is connected to the computer.
   - If the software does not automatically launch, right-click Bryton Bridge icon in the system tray and select **Open my device manager**.



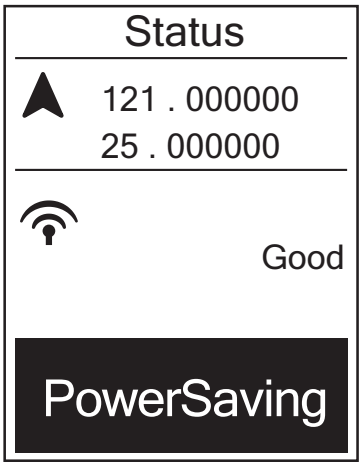
3. Specify the file format and the location to save tracks in your computer.
   Tracks can be saved at local computer as BDX, GPX, TCX and PWF format.



4. Click **Save** to save the file.

View GPS Status

You can view the GPS signal information that your device is currently receiving.



1. In the Settings menu, press ▼ PAGE to select **Status** and press LAP▶ OK.
2. To set the signal search mode, press LAP▶ OK to confirm.
3. Press ■/II BACK / ▼ PAGE to select the desired setting and press LAP▶ OK to confirm.
   - Off: Turn-off GPS functions. Choose this to save power when GPS signal is not available, or when GPS information is not required (such as indoor use).
   - Full Power: maximum position and speed accuracy, consumes more power.
   - PowerSaving: Achieves longer battery life when used in good GPS signal condition, but less accurate.

View Software Version

You can view your device current software version.

1. In the Settings menu, press ▼ PAGE to select **About**.
2. Press LAP▶ OK to confirm.
   The current software version is displayed on the screen.
3. Press ■/II BACK to exit this menu.

Appendix

Specifications

Rider 20+

Item	Description
Display	1.6 FSTN positive transflective LCD
Physical Size	39.6 x 58.9 x 17 mm
Weight	40g
Operating Temperature	-10°C ~ 50°C
Battery Charging Temperature	0°C ~ 40°C
Battery	Li polymer rechargeable battery
Battery Life	17 hours with open sky
GPS	Integrated high-sensitivity GPS receiver with embedded antenna
RF Transceiver	2.4GMHz Ant+
Water Resistant	IPX7 waterproof rating

Speed/Cadence Sensor

Item	Description
Physical size	34.2 x 46.7 x 13.2 mm
Weight	14 g
Water Resistance	IPX7
Transmission range	5 m
Battery life	1 hour per day for 16 months
Operating temperature	-10°C ~ 60°C
Radio frequency/protocol	2.4GHz / Dynastream ANT+ Sport wireless communications protocol

Accuracy may be degraded by poor sensor contact, electrical interference, and receiver distance from the transmitter.

Heart Rate Monitor

Item	Description
Physical size	67~100 x 26 x 15 mm
Weight	14 g (sensor) / 35g (strap)
Water Resistance	20 m
Transmission range	5 m
Battery life	1 hour per day for 24 months
Operating temperature	5°C ~ 40°C
Radio frequency/protocol	2.4GHz / Dynastream ANT+ Sport wireless communications protocol

Accuracy may be degraded by poor sensor contact, electrical interference, and receiver distance from the transmitter.

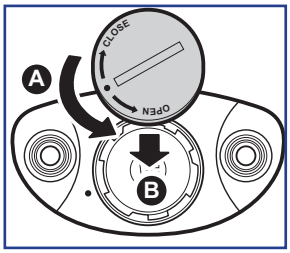
Battery Information

Heart Rate Monitor and Cadence Sensor Battery

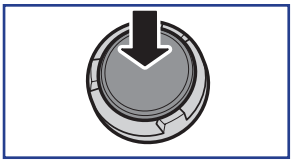
The heart rate monitor/cadence sensor contains a user-replaceable CR2032 battery.

To replace the battery:

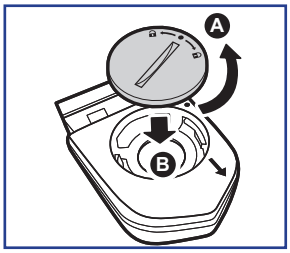
1. Locate the circular battery cover on the back of the heart rate monitor/cadence sensor.
2. Use a coin to twist the cover counter-clockwise so the arrow on the cover points to OPEN.
3. Remove the cover and battery. Wait for 30 seconds.



4. Insert the new battery, with the positive connector first into the battery chamber.



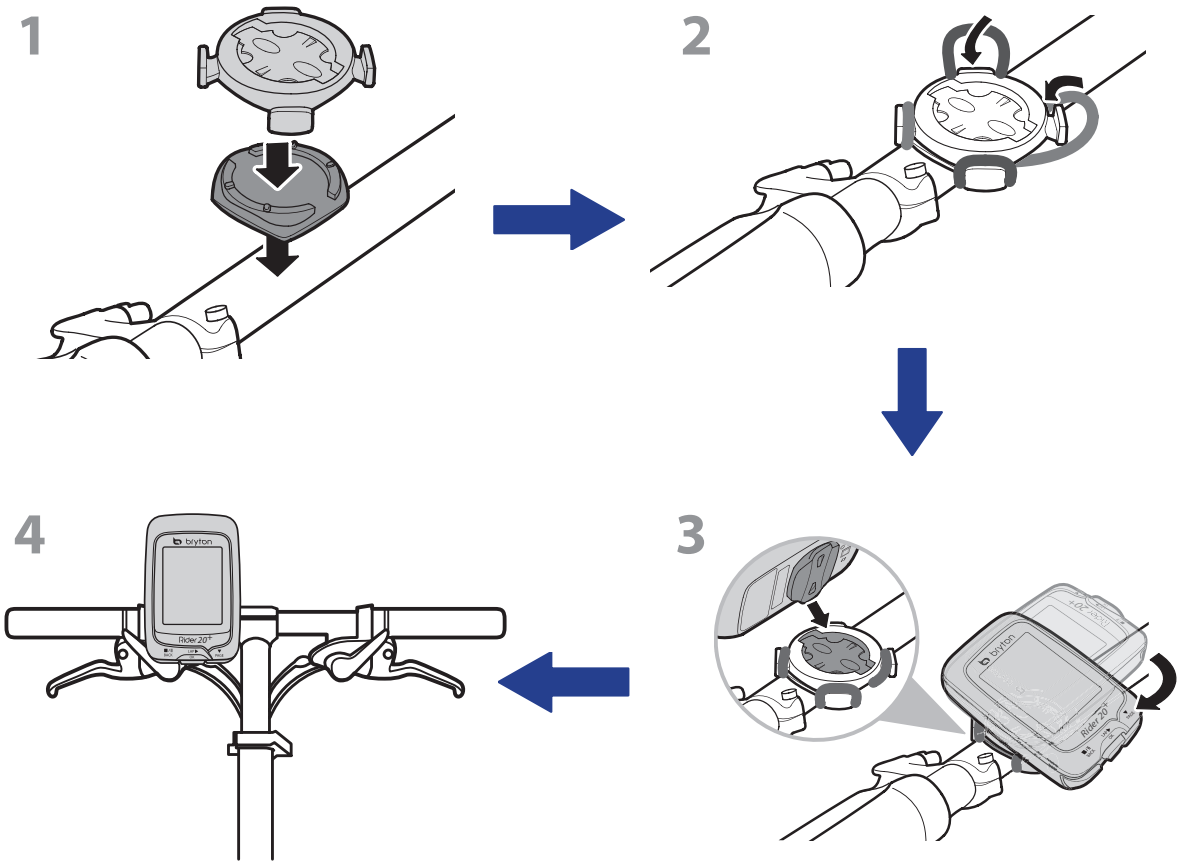
5. Use a coin to twist the cover clockwise so the arrow on the cover points to CLOSE.



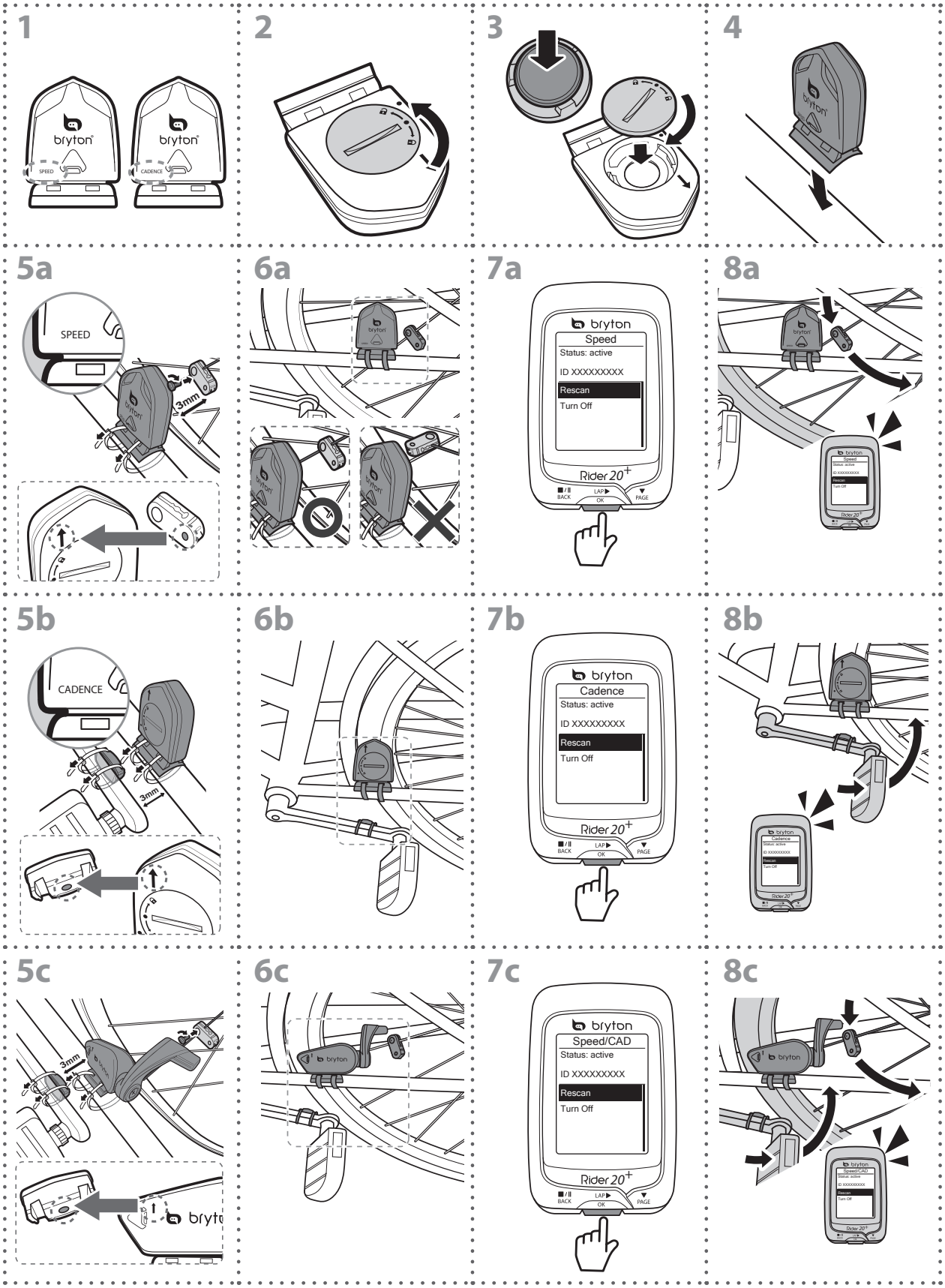
NOTE:
- When installing a new battery, if the battery is not placed with the positive connector first, the positive connector will easily deform and malfunction.
- Be careful not to damage or lose the O-ring gasket on the cover.
- Contact your local waste disposal department to properly dispose of used batteries.

Install Rider 20+

Mount Rider 20+ to the Bike

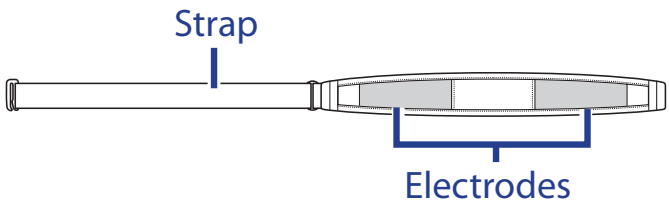


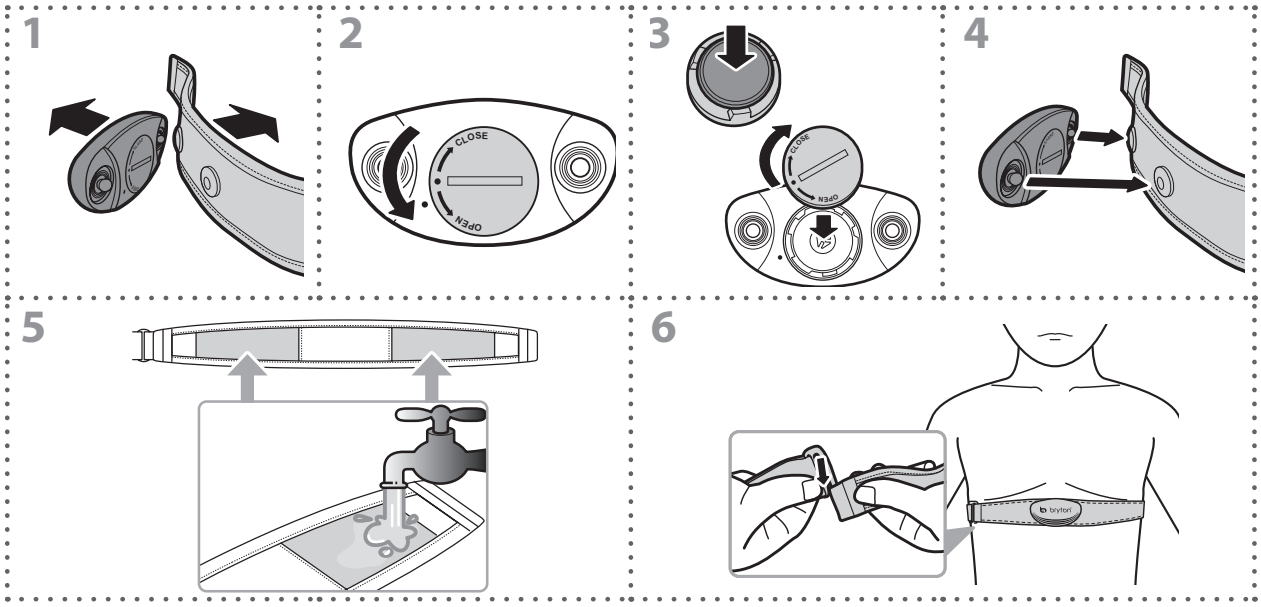
Install the Speed/Cadence/Dual Sensor (Optional)



NOTE:
- To ensure optimum performance, do the following:
  - Align both sensor and magnet as shown in the illustration (5a / 5b). Pay attention on the alignment points.
  - Ensure the distance between the sensor and the magnet is within 3 mm.
- Ensure that both Speed sensor and Speed magnet are installed and aligned horizontally, not vertically.
- On the initial usage, press the front button to activate the sensor and start pedaling. When the sensor detects the magnet, the LED blinks once to indicate the alignment is correct (the LED blinks only for the first ten passes after pressing the button).

Install Heart Rate Belt (Optional)





NOTE:
- In cold weather, wear appropriate clothing to keep the heart rate belt warm.
- The belt should be worn directly on your body.
- Adjust the sensor position to the middle part of the body (wear it slightly below the chest). The Bryton logo shown on the sensor should be facing upward. Tighten the elastic belt firmly so that it will not turn loose during the exercise.
- If the sensor cannot be detected or the reading is abnormal, please warm up for about 5 minutes.
- If the heart rate belt is not used for a period of time, remove the sensor from the heart rate belt.

Wheel Size and Circumference

The wheel size is marked on both sides of the tires.

Wheel Size	L (mm)
12 x 1.75	935
14 x 1.5	1020
14 x 1.75	1055
16 x 1.5	1185
16 x 1.75	1195
18 x 1.5	1340
18 x 1.75	1350
20 x 1.75	1515
20 x 1-3/8	1615
22 x 1-3/8	1770
22 x 1-1/2	1785
24 x 1	1753
24 x 3/4 Tubular	1785
24 x 1-1/8	1795
24 x 1-1/4	1905
26 x 2.10	2068
26 x 2.125	2070
26 x 2.35	2083
26 x 3.00	2170
27 x 1	2145
27 x 1-1/8	2155
27 x 1-1/4	2161
27 x 1-3/8	2169
650 x 35A	2090
650 x 38A	2125
650 x 38B	2105
700 x 18C	2070

Wheel Size	L (mm)
24 x 1.75	1890
24 x 2.00	1925
24 x 2.125	1965
26 x 7/8	1920
26 x 1(59)	1913
26 x 1(65)	1952
26 x 1.25	1953
26 x 1-1/8	1970
26 x 1-3/8	2068
26 x 1-1/2	2100
26 x 1.40	2005
26 x 1.50	2010
26 x 1.75	2023
26 x 1.95	2050
26 x 2.00	2055
700 x19C	2080
700 x 20C	2086
700 x 23C	2096
700 x 25C	2105
700 x 28C	2136
700 x 30C	2170
700 x 32C	2155
700C Tubular	2130
700 x 35C	2168
700 x 38C	2180
700 x 40C	2200

Basic Care For Your Rider 20+

Taking good care of your device will reduce the risk of damage to your device.

- Do not drop your device or subject it to severe shock.
- Do not expose your device to extreme temperatures and excessive moisture.
- The screen surface can easily be scratched. Use the non-adhesive generic screen protectors to help protect the screen from minor scratches.
- Use diluted neutral detergent on a soft cloth to clean your device.
- Do not attempt to disassemble, repair, or make any modifications to your device. Any attempt to do so will make the warranty invalid.

NOTE: Improper battery replacement may cause an explosion. When replacing a new battery, use only the original battery or a similar type of battery specified by the manufacturer. Disposal of the used batteries must be carried out in accordance to the regulations of your local authority.

For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

Screen Terminologies

Screen Display	Terminology
LapAvSpd	lap average speed
LapMaSpd	lap maximum speed
L'stLpAvSp	last lap average speed
LapDist	lap distance
L'stLpDist	last lap distance
L'stLapT	last lap time
LapAvHR	lap average heart rate
LapMaHR	lap maximum heart rate
L'LpAvHR	last lap average heart rate
L'A'MHR%	lap average MHR percentage
L'A'LTHR%	lap average LTHR percentage
Str'dRate	stride rate
AvStr'dRt	average stride rate
MaStr'dRt	maximum stride rate
LpAvSt'dR	lap average stride rate
LpStr'dAvL	lap stride average length
LLpSt'dAvL	last lap stride average length
AvSt'dl'gth	average stride length
AvgPace	average pace
MaxPace	maximum pace
L'st1kmP	last 1km/mile pace
LapAvP	lap average pace
L'stLpAvP	last lap average pace
LapMaP	lap maximum pace
LAvCAD	lap average cadence
ODO	odometer
T to Dest	Time to Destination
D to Dest	Distance to Destination
Alt. Gain	Altitude Gain
Alt. Loss	Altitude Loss